

***FlyBy Math™* Alignment to  
Nevada Mathematics Content Standards  
February 25, 2003 Edition**

**Content Standard 1.0: Numbers, Number Sense, and Computation**

*To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate, use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.*

**Application**

**Content Standard**

1.7.2 Apply positive and negative numbers, ratios, and proportions to solve mathematical and practical problems.

***FlyBy Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

**Content Standard 2.0: Patterns, Functions, and Algebra**

*To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.*

**Patterns**

**Content Standard**

2.7.1 Use and create coordinate graphs (i.e., linear, geometric, and exponential ) to represent and/or interpret patterns and relationships, with and without calculators.

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases linear equations and a Cartesian coordinate system.

**Relationships**

**Content Standard**

2.7.2 Identify, model, describe, and evaluate relationships using graphs, with and without technology.

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

**Equation Solutions**

**Content Standard**

2.7.7 Generate and graph a set of ordered pairs to solve a linear equation.

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.

--Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.

**Content Standard 3.0: Measurement**

*To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.*

## Proportion and Ratio

Content Standard	FlyBy Math™ Activities
3.7.5 Write, solve, and apply proportions.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

## Time

Content Standard	FlyBy Math™ Activities
3.7.6 Use elapsed time to solve practical problems (e.g., develop schedules, plan trips).	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

## Content Standard 4.0: Spatial Relationships and Geometry

*To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will identify, represent, explain, verify, and apply spatial relationships and geometric properties.*

### Line, Slopes, and Linear Equations

Content Standard	FlyBy Math™ Activities
4.7.5 Use coordinate geometry to represent slope, midpoint, and horizontal and vertical distance.	<p>--Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.</p> <p>--Interpret the slope of a line in the context of a distance-rate-time problem.</p>

## Content Standard 5.0: Data Analysis

*To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.*

### Data Collection and Organization

Content Standard	FlyBy Math™ Activities
5.7.1 Organize, display, read, and analyze data, with and without technology, using a variety of displays including frequency <b>distributions</b> and circle graphs.	<p>--Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.</p> <p>--Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs.</p>

## Design

Content Standard	FlyBy Math™ Activities
5.7.6 Given a set of data, interpolate and extrapolate to make and explain predictions.	--Predict outcomes and explain results of mathematical models and experiments.